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THE AMERICAN BEE JOURNAL

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Glucose as a Patent Monopoly.

In the *Farmer's Review*, for last Saturday, we find the following item:

"Another monopoly has arisen under the fostering care of our patent laws. This time a monopoly is an adulterant. The 'National Confectionery Company' claims patents on the use of glucose in candies, and demand payment of royalties on all the glucose used by the confectioners in the past, amounting to \$10,000,000 or more, and a royalty of $\frac{1}{4}$ cent a pound for the future. This will be rough on the candy men and dishonest sugar 'refiners,' but the public will perhaps be benefited, as the confectioners say they will not use the glucose under such conditions."

We sincerely hope that the result may be as stated by the *Review*—the abandonment of the use of that abominable trash in candies. It is indeed painful to see millions of children eating that death-dealing humbug—glucose—under the guise of candy.

It is steadily being driven out of use, and we are glad to see that one by one, the manufacturers, who use it as an adulterant, are dropping it. No matter what may be the cause, so long as it is done.

It has been used by the makers of printers' rollers, but as its use destroys the elasticity of the rollers so soon—they are dropping it!

It has been used extensively in feeding bees; but the death of large numbers during the winter of 1880-1, and the physical degeneration of bees and consequent losses in spring, are too much for the "bee-keepers" to endure, and they are dropping it!

The candy manufacturers have used it so extensively as to cause a

protest to come from physicians against its use—but as the children are tempted to obtain the vile trash, and have not sufficient judgment or knowledge to control their appetites, let us hope that the "Company" above alluded to, may, in their avariciousness, remedy this evil.

Thousands of thousands are rapidly going down to the grave, who might have been spared many years to their friends and their country but for the use of this monster adulterant.

It is a great moloch, but it must fall—let us "work and pray" for its complete destruction.

Wired Foundation.—We have received from Mr. J. H. Martin, Hartford, N. Y., samples of his foundation. One is showing his method of shipping wired foundation in little rims weighing about half an ounce. These are to be fastened into the regular frames, and will save the trouble of wiring the frames for those who desire to use the wired foundation. The other is a sample of thin foundation for surplus honey, the bases of the cells being lozenge-shaped, and all equally thin. The samples are very nice.

New Price Lists.—We have received new Apiarian Catalogues and Price Lists from the following:

H. H. Brown, Light Street, Pa.
J. M. C. Taylor, Lewistown, Md.
J. B. Bray, Lynnville, Tenn.
J. H. Martin, Hartford, N. Y.

The BEE JOURNAL is mailed at the Chicago Postoffice every Tuesday, and any irregularity in its arrival is due to the postal employes, or some cause beyond our control.

Articles for publication must be written on a separate piece of paper from items of business.

Mr. G. M. Doolittle is recovering from his sickness, but Mrs. D. is now prostrated by the same disease. We hope both may soon recover.

Increase by Division.

Mr. D. D. Marsh, of Massachusetts, in January last propounded some inquiries, which we give below, regarding feeding and division, the answer to which we have withheld till the present time, in order to give them seasonable insertion and save repetition, as they will possess more or less interest for all who have had but little experience in this line.

1. Will it do to feed during April and May, for stimulative breeding, brown sugar, such as is found in the bottom of molasses barrels? I can buy this of grocers for 3 and 4 cents per lb.

2. Will you give in detail the best method of artificial swarming, on the nucleus plan, for one who has 10 colonies in Langstroth hives, and wishes to make about 8 new ones with the least interference with the crop of section and extracted honey?

3. How to get queen cells?

4. When to make up the nuclei—before or after the sections are put on?

5. Whether section racks are to be lifted from time to time to get frames of bees and brood?

1. Yes, if it be pure molasses. For stimulative and breeding purposes it should be dissolved and thinned with warm water, and fed only as fast as consumed.

2. This is perhaps one of the most interesting features in the management of an apiary. All operations will be governed somewhat by the number of colonies to be manipulated, and the amount of increase desired; it should also be borne in mind that, although the amount of increase possible is almost unlimited, all excessive increase will be at the expense of the surplus honey yield. In order to be better understood, we will suppose the apiarist has 4 good colonies which he wishes to increase to 9. As a progressive bee-keeper, he will be actuated by a desire to possess the best; therefore, the colony which has heretofore proven the most satisfactory in all things, will be selected as the one from which to rear queens for new colonies. This colony, for convenience in summarizing, we will designate No. 1. As soon as spring opens, feed No. 1 about half a pint of thin cane-sugar syrup or honey diluted with warm water. This had better be fed at the entrance in the evening, to avoid robbing, and be given slightly warmed. Keep this up till there is capped drone brood in some of the combs, or better still, till you have drones emerging from the cells. Now

move one of the other colonies from its stand (which we will designate No. 2); place No. 2 on a new stand, put a new or empty hive on the stand vacated; lift the frame from No. 1 on which you find the queen and place in the empty hive (No. 3); place a frame of foundation in No. 1 and close the hive. From No. 2, and each of the two hives not numbered lift 2 frames of brood well advanced, shake off the old bees, and place in No. 3, with the queen lately placed there. These last frames put in should be alternated as much as possible, so as to confuse the working bees from No. 2, which will naturally return to the old stand and enter No. 3. Fill up the latter hive with frames of foundation, alternated with the brood combs, to its full complement. If a 10-frame hive, this will give it 7 frames of brood, 3 frames of foundation, and your best queen. If you have bright, clean, empty combs, they will answer about as well as foundation, though we prefer the best foundation. Put in foundation or combs to supply the places of those taken from the other hives, close them, and your first division is completed, making 6 colonies.

In ten to twelve days, examine carefully the combs in No. 1, to see how many good queen cells you have capped over. Close the hive carefully, and let it remain 24 to 36 hours. As soon as you have determined the number of cells, remove each of the 4 colonies which have queens to new stands, and place empty hives where they stood. Take the brood frame from each on which you will find the queen, and place in the empty hive where they were moved from. Add three more brood frames to each, from the hive removed from there, place two frames of foundation or empty combs in the center of these, put a division-board on the outside of the combs, and close the hives. The hives from which these were taken will each be left with six brood frames; to these add two empty combs or sheets of foundation, put in division-boards at the outsides, and close for 24 or 36 hours. You now have 4 new colonies with queens, 4 without queens, and 1 with queen cells.

At the end of 24 hours you will find queen cells started, or preparations to start them, in the 4 queenless colonies. With a sharp, narrow-bladed knife circle out 4 of the best queen cells from No. 1, leaving a good one; cut a

round hole, about $1\frac{1}{2}$ inches in diameter, from the center of a brood frame in each of the queenless colonies, and slip in a queen cell. These should fit pretty tightly, so they will not drop out. Great care must be observed not to bruise any of them, and they must not be cut so close to the cell as to run a chance of injuring the young queen yet in the cell. In a few days these young queens will be hatched, mated and laying, and you now have 9 colonies. As fast as the foundation in these colonies is drawn out, the combs can be spread and new foundation or combs added, until the full complement are in the hive.


You will now have 9 colonies from the four in early spring, and by close attention in supplying good foundation as fast as they are prepared to receive it, with a good white clover and basswood yield, or a few acres of sweet clover pasture, you may expect a fine surplus yield of extracted honey.

With 10 strong colonies to start in with, the strongest and best should be removed from its stand, and an empty hive be put in its place; now select a comb from the colony with only fresh eggs and place in the empty hive on the old stand; put in two combs of honey from some other colony, and an empty comb or sheet of foundation on each side, now confine all to the center with division boards, and shake the bees from the combs in front of the new hive. Twenty-four hours before the queen cells are ripe enough to cut out, form a three-frame nucleus from each full colony, and after they have started queen cells, destroy them, and graft in your ripe cells. In all cases, supply foundation or empty combs in place of those taken from the colonies, and add others to the nuclei as fast as needed.

3. This is answered in the last paragraph.

4. Make your division during fruit bloom, or as soon thereafter as weather is favorable.

5. No need to lift section racks, as division and increase will be completed before white clover or basswood come into bloom.

 We have received several more complaints and samples of the sections sent out by that Doon, Canada, supply dealer. Mr. Mason reports, however, that he has made satisfactory amends to him. Let us hope that he may do so with all, and thus save further complaints and annoyance.

Cheap Queens Again.

Since our editorial comments regarding cheap queens, in the BEE JOURNAL for March 8th, we have received the following letters relating thereto, which we publish entire, omitting the names of the writers, to prevent any personal controversy, only desiring the arguments:

DEAR SIR.—The BEE JOURNAL for March 8 contains an editorial on "The Cheap Queen Traffic," in which you make some astonishing assertions for an editor who has no axe to grind. So far, I have passed all the articles and comments on this "dollar queen" question, unnoticed; but when I see that the editor of the AMERICAN BEE JOURNAL is inclined to denounce us (untested queen breeders) as frauds, and selling worthless trash at the expense of those purchasing, and at an actual damage to the bee-keeping interest, I cannot help but defend myself at least. Taking your editorial in the whole, the above is what you seem to impress upon your readers.

Now, sir, will you please give us the name of the "breeder, who has had more experience with cheap priced queens than any other in America, or the world, and has probably reared and sold nearly as many as all the others combined, etc.," and why, if his opinion is, that not one queen out of ten sent out, is worth a cent, did he rear and sell as many of them as all of the queen breeders combined? I think you should also give the name of that honest Michigan breeder (in justice to him) who quit after he found out that he was defrauding his innocent purchasers.

I do not think it is necessary for me to argue this point, for I know I could not convince you and those whose motives are prompted by self interest or prejudice; the only point I wish to arrive at, is to try to prevent your readers to labor under the impression that I, as a breeder of untested queens, sell worthless trash and that I am defrauding those who deal with me, and the only way is to ask every one who has purchased queens from me in 1881, to drop you a postal card and state what kind of a queen they received from me, and if 10 per cent. report worthless trash, I will pay you \$100 for the benefit of any institution—or, if you prefer, I will send you a list of all and you can drop each a postal card and I will pay you the cost and trouble. I have reared nearly 1,200 queens in 1881.

I claim to sell no queen that I would not have for myself and this has been my invariable rule. It is no more trouble to rear good queens than it is to rear poor ones, when you understand or know how to do it, etc.

I know it is more expensive to rear queens in the North, as you cannot winter nuclei, but here, mine (which are all 4 or 5 frames) remain on their summer stands all the winter, and come out in the spring ready for business.

If queens cannot be reared at \$1, from a selected mother, at a profit, can the advocates of tested queens tell us how they can rear queens fully tested at \$2, and make it pay?

I will conclude in saying that you may fight this "dollar queen" business with legal arms, but don't make your readers believe that all such breeders are selling worthless trash, etc., by citing two or three breeders' experience, though one of them has reared and sold as many queens as all the breeders of America combined!

MR. EDITOR:—Concerning your editorial on "The Cheap Queen Traffic," I would like to inquire if the quotations which you make from experienced breeders that "not one queen out of ten sent out is worth one cent," and "such were not usually worth 25 cents a dozen," refer to queens sent out by queen breeders in general, or to what is usually understood by dollar queens, viz: Queens which are the daughters of imported, or very choice mothers, and which have just begun to lay.

If they refer to the former, I cannot see how the buyer will be helped by being compelled to pay a greater price for his queens, for the breeder who will send out superannuated and worthless queens for a dollar, will certainly not scruple to send out the same for a higher price. If, on the other hand, they refer to the dollar queen as usually understood, and they are founded in fact, we are confronted by a very serious hindrance to progress in bee culture. For, if not one in ten is worth a cent, the question occurs: How many would have to be raised, tested, and destroyed, before one could be found which was really valuable, and if the rearing of such queens at a dollar each is found by experienced breeders to be unremunerative, the price of a really good queen would leave the majority of bee-keepers no choice but to do without them altogether?

I have no personal acquaintance with any queen breeder, but I believe there are many who are too conscientious to continue in a business which is such a fraud on innocent customers as the above quotations would seem to indicate.

We certainly do not want to buy queens at a dollar each, with the prospect of finding only one in fifteen or twenty that is worth her price, but if we pay three or four dollars for a queen, we want some assurance that the queen which we buy will be worth the money.

In reply to Mr. Alley's article on page 151 of the BEE JOURNAL, permit me to say that while I am willing to admit most, if not all he says about "dollar" queens; it seems to me he has made a most ludicrous blunder in winding up his article. He says: "Let all the leading queen breeders combine, and resolve not to sell queens less than \$2 each, and not sell any that are not thoroughly tested; then, if bee-keepers want a cheap article, let them purchase of those who have

not had much experience at the business."

It appears to me, from the above sentence, that Mr. Alley is endeavoring to establish a monopoly in the queen rearing business, rather than to make it more profitable to both breeder and purchaser.

It is evident that any apiarist of ordinary skill can produce untested queens, at the rate of one every 15 days, for each nucleus or colony, and many claim to do better than this. Every apiarist knows that it takes from 22 to 25 days to test a queen for prolificness and the color of her progeny; and to test the qualities of her bees will take at least 25 days more, and then, it must be at a time when honey is coming in freely. Now, it looks strange to me that there can be more profit from selling queens at \$2 each, when it takes from 65 to 70 days to rear and test them, than to sell at \$1 each, and produce them in 15 or 20 days. It surely does not require 20 years, nor 10 years, and I hardly see the necessity of its taking 5 years, to learn to breed bees; and I cannot see the consistency in Mr. Alley's making such a thrust at beginners, as appears in the above sentence.

I will offer a suggestion: Let every breeder (whether he be a leading one or not) who wishes to do an honorable business, test thoroughly, the qualities of the worker progeny of every queen he may wish to breed from, then breed from such only as are valuable. Then test the young queens for size, activity and prolificness, and their progeny for activity and uniformity of size and color, whether they are black, brown, or yellow, and then sell at a living price to the breeder, and I feel confident that the purchaser will not be defrauded.

We have long held to the opinion that "the best is the cheapest" with queens, as with everything that is worth a price, and have always been outspoken in our condemnation of the cheap queen traffic. We have not felt the necessity for condemning the breeders of such "as frauds," and we have not insinuated anything of the kind, because we know there are honorable men engaged in breeding and selling them, as also honorable men who have dropped the business from honest convictions, having been convinced that the whole thing was wrong. Nor do we feel called upon to give their names, and subject them to criticism for having obeyed the dictates of an honest conscience, preferring rather to let time prove them and ourselves correct. There may be, and probably are, unscrupulous men engaged in breeding and selling worthless queens for tested, but this establishes no point except as to their unfair dealing. When convinced that no better queens can be purchased for

a remunerative and fair price than can be bought for one dollar, we shall cease advising our readers to buy only the best, and only from the most discriminating and careful breeders. If the majority of the "dollar" queens are not as good as the majority of the high-priced tested ones, then they are not so cheap.

We think we were not extravagant in our estimate of the number of cheap queens bred and sold by Mr. Henry Alley, during the 20 years of his experience, as compared with others engaged, and certainly if, in that length of time, he could not determine the value of such queens, and the profit derived from the breeding of them, no one is competent to do so.

Our honest convictions remain, that the cheap queen traffic has been a detriment to the development and permanence of the better strain of bees, and will yet prove a curse to apiculture in America. To the future we leave the question for settlement, with every confidence that time will sustain us in our position, and the bee-keepers of the future will repair the errors of the past and present, and recover the vantage loss by a mistaken economy. Meantime, we drop the question for the present, with the injunction to *buy and breed only the best.*

Bees will be in lively demand this spring. We have hundreds of calls for copies of the BEE JOURNAL every week from beginners and those who intend to enter the ranks of bee-keepers. They want to read the advertisements and ascertain where to buy bees. Those who have any thing for sale should now be on the alert, and get their advertisements before the public. Not a week should be lost now, for the time is at hand to do business. "A word to the wise is sufficient."

By all means, bee-keepers should provide for the future by planting honey producing trees. One of the best is the basswood. Do not let a spring pass without doing something in the line of providing for the future in this way.

Binders for 1882.—We have had a lot of Emerson binders made especially for the BEE JOURNAL for 1882. They are lettered in gold on the back, and make a nice and convenient way to preserve the JOURNAL as fast as received. They will be sent post paid by mail for 75 cents.



Local Convention Directory.

1882. *Time and Place of Meeting.*
 April 1—Barren Co., Ky., at Sinking Spring, Ky.
 11—Eastern Michigan, at Detroit, Mich.
 A. B. Weed, Sec., Detroit, Mich.
 15—Northern Ohio, at Norwalk, O.
 S. F. Newman, Sec.
 19, 20—Tuscarawas and Muskingum Valley,
 at Coshocton, O.
 J. A. Bucklew, Sec., Clarks, O.
 25—Texas State, at McKinney, Texas.
 Wm. R. Howard, Sec.
 26, 27—Western Mich. at Grand Rapids.
 W. M. S. Dodge, Sec., Coopersville, Mich.
 26, 27—Western Michigan, at Grand Rapids.
 Wm. M. S. Dodge, Sec., Coopersville, Mich.
 27—Kentucky Union, at Eminence, Ky.
 G. W. Demaree, Sec., Christiansburg, Ky.
 May 2, 3—Eastern N. Y. Union, at Cobleskill, N. Y.
 C. Quackenbush, Sec., Barnesville, N. Y.
 11—Champlain Valley, at Middlebury, Vt.
 T. Brookins, Sec., East Shoreham, Vt.
 16—N. W. Ill. and S. W. Wis., at Rock City, Ill.
 Jonathan Stewart, Sec., Rock City, Ill.
 25—Iowa Central, at Winterset, Iowa.
 Henry Wallace, Sec.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

New Jersey and Eastern Convention.

The bee-keepers of New Jersey and vicinity met at New Brunswick, N. J., on Wednesday, March 15, to organize a society.

The meeting was called to order at 10:15 a. m. by Mr. G. W. Thompson, of Stelton, who was subsequently elected temporary chairman. He stated the object of the gathering, and enumerated the interests involved which had brought forth such a step.

Mr. King, of New York, thought that a name for the new association should be adopted first.

H. M. Cook, with this end in view, moved that a committee of five be appointed to draw up articles embodying a constitution and suggest a name for the association.

The motion was adopted unanimously, and the following were appointed such committee: Messrs. Hasbrouck, Rue, King, Harmeling and Read.

While the committee were at work Mr. Thompson spoke at length on the subject of bee-keeping. There was an unlimited demand for pure products of the farm, especially honey, and those who were engaged in farming should organize and thus protect themselves against adulterations and spurious farm food.

Prof. Kroeh, of Hoboken, said that it had been a disadvantage to the majority of bee-keepers that they had not been in harmony and consultation with each other in regard to their products, thus losing in the money value of marketable food. Such an organization was eminently proper in his mind, and each bee-keeper should

exert himself in keeping alive the interest thus far manifested in the premises.

Prof. Hasbrouck was elected as temporary Secretary, who read the constitution and by-laws suggested by the committee appointed for that purpose, which were adopted. Adjourned.

In the afternoon, the New Jersey and Eastern Bee-keepers' Association met and unanimously elected the following as its first officers:

President, G. W. Thompson; Vice President, Ira Yeager; Secretary, Prof. J. Hasbrouck; Treasurer, Prof. C. F. Kroeh.

The following gentlemen were elected as the executive committee: T. F. Reed, Brooklyn, N. Y., three years; J. H. M. Cook, Caldwell, N. J., two years; C. H. Rue, Manalapan, N. J., one year.

Mr. Cook stated that each member should bring in a report at the next meeting, showing the condition of his bees and the net value of the honey harvested.

Prof. Kroeh moved a vote of thanks be extended to Mr. King, of New York, for the liberal donation which he had made to the Association of the proceeds of the sale of his Magazine to the members, turning the money into the treasury of the Association.

Mr. King acknowledged the action and stated that he would in addition give each lady who should join the Association a receipt for one year's subscription to his bee Magazine. This brought forth a round of applause from the members.

The gentleman referred to last, suggested that Secretary Hasbrouck keep up a correspondence with the various bee-keepers' associations throughout the country for the benefit of this organization. This suggestion met with approval, but the Secretary was not instructed to do so.

Mr. Tompkins, of Newark, stated that although a honey consumer he was not a bee-keeper, but he could not do without the pure article in his home.

Mr. King said that it would be eminently proper for this Association to offer premiums to its members for the best honey during the coming season, said honey to be put up in good and substantial manner and form. This gentleman also said that the ordinary syrups were manufactured with sulphuric acid and more than one-half glucose, which were injurious to children. Extracted honey ought to take the place of these poisons.

Mr. Cook suggested that the Association take some decided step in regard to the protection of the members from adulterations of syrups.

Mr. G. W. Thompson favored such a step but cautioned moderation in the premises.

A number of the members spoke on the subject of adulterations. One said that recently a man was found by him peddling adulterated honey from door to door. He was told to get out of the place at once or he would be prosecuted. The member submitted that adulterations were practiced to an alarming extent in this State.

Prof. Hasbrouck said that most of the adulterations in honey were put up in small bottles and tumblers, but that no successful adulteration had been found in comb honey.

The next meeting of the Association will be held in New Brunswick, at the same place, in November next.

Prof. Kroeh thought that all the members should co-operate in furthering the objects of the association, by communicating with each other and preparing notes as to bee-culture, etc. Association adjourned.

Marshall County, Iowa, Convention.

The Marshall County Bee-Keepers' Association met at the court house in Marshalltown, March 4, at 1 p. m. G. W. Keeler acted as president.

The Secretary read a short minute, stating the cause of the failure of the previous meetings. The society had an interesting talk on the subject of bee culture, which all felt beneficial. Mr. Samuel Richey joined the society.

The subject of meeting quarterly, instead of monthly, was deferred until the next meeting; also the election of officers.

The subject for discussion at the next meeting, is "care of bees in the spring, and how to manage them to secure the most honey."

Adjourned to meet on Saturday, April 1st, at 1 p. m., at the same place.

All interested in the "busy bee" in Marshall and adjoining counties, are respectively invited to attend.

G. W. KEELER, Pres., *pro tem*.
J. W. SANDERS, Sec.

A special meeting of the Western Michigan Bee-Keepers' Association, will be held in Supervisors' Hall, Grand Rapids, Mich., Wednesday and Thursday, April 26 and 27, 1882.
W. M. S. DODGE, Sec.

The spring meeting of the Northern Ohio Bee-Keepers' Association will be held at Norwalk, O., on Saturday, April, 15, 1882.
S. F. NEWMAN, Sec.

The Union Bee-Keepers' Association will meet at Eminence, Ky., on the 27th day of April, 1882. A full attendance is very much desired, as important business will be transacted.
G. W. DEMAREE, Sec.
Christiansburg, Ky.

The Central Michigan Bee-Keepers' Association will meet April 20, at Lansing, in the Capitol building. Programme.—President's annual address, Rev. J. Ashworth; bee hives and fixtures, E. W. Wood; Cyprian bees, J. Harper; the coming bee, Prof. A. J. Cook; care of old combs, Stephen C. Perry.

REV. J. ASHWORTH, Pres.

The Barren County Bee-Keepers' Association meets at Sinking Spring school house, three miles west in Glasgow, Ky., on the first Saturday of April, 1882. All bee-keepers of the county are invited.

I. N. GREER, President.

The semi-annual meeting of the Tuscarawas and Muskingum Valley Bee-Keepers' Convention, will be held in the Town Hall at Coshocton, O., on April 19 and 20, commencing at 10 a. m. A cordial invitation is extended to bee-keepers everywhere.

J. A. BUCKLEW, Sec., Clarks, O.

The spring meeting of the Mahoning Valley Bee-Keepers' Association, will be held at Berlin Center, Mahoning Co., Ohio, in the Town Hall, on Saturday, March 25, at 1 p. m., sharp. All interested in the science of apiculture are invited to be present and participate in the discussions of the day. The following questions will be discussed: "The merits of the different races of bees." "The best method of securing surplus honey." "Which is most profitable to the bee-keeper, comb or extracted honey?" An essay on pasturage or forage for bees will be given.

LEONIDAS CARSON, Pres.

The Champlain Valley Bee-Keepers' Association will hold their semi-annual meeting at Middlebury, Vt., May 11, 1882.
T. BROOKINS, Sec.

The Texas State Bee-Keepers' Convention will hold its meeting at Judge W. H. Andrews' Apiary, at McKinney, Texas, April 25, 1882.
W. M. R. HOWARD, Sec.



MISCELLANEOUS.

Glucose Adulteration and Congress.
—The *Western Rural* remarks as follows on this subject:

Food adulterations have attracted the attention of Congress this winter to a commendable degree, and there are good grounds for hope that the honest producer will yet find protection from a ruinous competition, and that the consumer will have some guaranty that what he eats is pure.

The business of adulterating food-products is without a single exception the most villainous that men have ever engaged in. It not only robs the producer, but as a general thing, it destroys health and life, and does it under such false pretenses that the victim is unaware of his danger. Yet such enterprises have gained such headway during the last few years that millions of money are invested in them, and every attempt to remedy the evil is met by that peculiar sort of influence which is common with men who are engaged in disreputable practices.

The efforts in Congress this winter have been opposed by large, wealthy and influential delegations, who have probably left nothing undone to defeat the enactment of laws which shall at least compel the manufacturers of

adulterations to inform the purchaser of their character before he purchases them.

The Western delegation of glucose manufacturers represented to the ways and means committee last week that the principal opposition to glucose manufacture, comes from the sugar refiners, that it was a growing Western industry, which furnished a market for the products of the country, and that consequently it ought to be encouraged.

The first statement is absolutely false. Glucose finds an opponent in every cane grower in the country, and cane growing in a country that is compelled to import its sweets, is a vastly more important industry than glucose ever was or ever will be.

It also finds an opponent in every consumer who knows that he cannot purchase one gallon of pure syrup, either cane or maple, and that it is with the utmost difficulty that he can obtain a pound of pure maple sugar.

It also finds an opponent in every farmer who knows that he is compelled to purchase adulterated sweets and who realizes that by filling the markets with adulterations, he encourages dishonesty in all departments of production, and thus endangers his profits upon nearly everything he grows.

If glucose has friends, they are only among those who are interested in the profits of its manufacture, or who do not know what it is or what the tendencies of the business are.

Passing over the fact that in the manufacture of the stuff sulphuric acid is used, and that the product contains this poison in large quantities, it is a fraud because it does not contain near the amount of saccharine matter that cane sugar or syrup does. Even if the purchaser gets it for a few cents less than he would have to pay for sugar—which is not often the case—he is cheated because what he buys is largely destitute of sweetness.

The Prospect, in California, for Honey.—The *Prairie Farmer* of last week contains the following:

California bee-keepers are jubilant over the prospects for a profitable honey season. Colonies have wintered well and are strong and healthy. One thing there the bee-keepers begin to dread, and that is the "Heathen Chinese." Says a correspondent of the *California Agriculturist*: "When I find them taking notes, I generally try to be careless, and give them no chance to get any practical information. I understand that some bee men have Chinamen to assist them at their work. This I think a very bad arrangement. Chinamen are quite fond of sweets. Honey is too high-priced to meet their idea of prices. If they should acquire the system of bee culture, our occupation would be at once gone. That they could learn to do as they see others do is an established fact, and the honey business is no more difficult for them to master than any other, with their dogged perseverance and cheap industry. My hope is that they may never get the entering wedge."

CORRESPONDENCE

For the American Bee Journal.

Producing Comb Honey—No. 3.

G. M. DOOLITTLE.

In my last I stated how I built up weak colonies, and left off where all colonies were ready to receive the boxes, so the next thing is getting the boxes ready and putting them on. The getting ready part I generally work at by odd spells, during the winter and early spring, so as to have all in readiness when they are wanted; but as this is the time they are wanted, I will give the way I prefer them, and advise that none wait about this getting ready part till just as the boxes are wanted, because I gave my mode of doing so at the time the bees were ready to receive them. During the leisure hours of winter and early spring is the time to have all in readiness, and they who are not thus ready are often the losers of a good portion of the honey which might be secured.

But about boxes; what size shall we use? As my mind goes back over the past, I remember the boxes my father used, made of rough $\frac{3}{8}$ -inch lumber, of a capacity to hold 15 lbs., and large enough to cover the whole top of the hive, being perhaps 6 or 7 inches deep. This honey was generally taken to our village in the box, and there turned bottom side up to expose the tempting sweet, encased in the nice, white combs, and I well recollect with what pride father would cut out the nice cards of well filled combs, as it was exchanged for the necessities of the family. Later he used two boxes covering the top of the hive, all planned smooth and a glass in one end, which at that time was considered to be all that was required. Then came the Langstroth 6 pound box; then the Alley 3 pound box; next the prize box, holding 2 pounds, and finally, the $4\frac{1}{4} \times 4\frac{1}{4}$, with its 1 pound of honey. I often wonder what father's customers would have thought had he suddenly changed from the large 15 pound box and presented them with honey put up in nice glassed crates, filled with 1 pound sections.

To return, as I have wandered a little in tracing the steps of progress that have been made in boxes and sections, we have to-day two sizes that are generally adopted—the prize box, which is $6\frac{1}{4} \times 5\frac{1}{4} \times 2$ inches outside measure, and the $4\frac{1}{4} \times 4\frac{1}{4} \times 2$, known as the $4\frac{1}{4} \times 4\frac{1}{4}$ section, the one holding about 2 lbs., and the other about 1 lb. The market seems to favor the 1 lb. section, not only as to price, but it sells much more readily, and while the prize section goes begging a market, the $4\frac{1}{4}$ style is all sold and more is called for; therefore it is easy to see which way the future points, as to style of section, but it is not so easy to see how to change all

our equipage, adapted to the prize section, and start with the $4\frac{1}{4}$ style without a loss greater than the compensation gained for the first few years at least.

One of our largest comb honey producers writes me, "it is evident that the 1 lb. section finds a much more ready sale at better prices than larger boxes, still a change of style as regards sections would involve a loss to me of several hundred dollars, therefore I cannot entertain the idea at present." Well, this being the case, shall we stick to these prize boxes or try and see if we cannot find a way out of it, and not cause us any loss whatever. As I prefer the latter plan, I will tell you how I arrange the matter. At the N. E. Bee-Keepers' Convention, in 1880, Mr. Thurber was reported as saying that the box which sold the most readily with them was a box $3\frac{1}{4} \times 5\frac{1}{2}$, holding about $1\frac{1}{2}$ lbs., and that he thought the 1 lb. section was as much too small as the prize section was too large, or words of like import. I have not his exact words before me, but quote from memory. This set me to thinking, and I soon hit upon a box, three of which would fill a case in place of where I used two before, thus giving me a section $6\frac{1}{4} \times 3\frac{1}{2} \times 2$ outside measure. To test them, this last fall I placed them in market by the side of the 1 lb. sections, in Boston, New York, Philadelphia, and other places, where I found they sold quite as readily as did that section, and for full as satisfactory prices. Thus I had gained the desired point without the waste of any of my fixtures. All the sections I make in the near future will be of this size, and as I can soon work out all my prize boxes on hand, I shall have no loss whatever. Those using a three box case can use 1 prize box and 3 of the above style, or make their sections still narrower, so 5 will fill the case, however, I hardly think as much honey can be obtained by the use of these small sections as with larger ones, still the price and readiness of sale will overbalance this part of it.

After deciding on the style of section we will use, they are to be filled with comb foundation, if such is thought to be profitable, and if not, put a starter of nice white comb in the top of each box. I prefer to cut these starters in a triangular shape, about $1\frac{1}{2}$ inches long on each side. Now turn your sections top side down, hold a hot iron close to the box, and after holding the starter immediately above and touching the iron, draw the iron out quickly and press the starter gently on to the wood, when it is a fixture. I then fill the cases with sections, putting sections filled with comb left over from the previous season in the center case, if I have them. If I have enough such to fill two cases, I place the two apart so as to set a case having boxes with only starters in them between. When I have enough to do this, I think I am sure of a good crop of honey if such is attainable from the fields, for these combs are more profitable to an apiarist than cash in the bank. With the brood chamber filled with brood, as I

have shown you it should be, and honey coming in from the fields, these combs are at once occupied, and those sections between and immediately surrounding them, that have starters in, are soon filled with beautiful white comb, and a good yield of comb honey is a certain thing, if the flowers continue to secrete nectar.

Having all prepared and bees all in readiness, the next thing is to put on the boxes. I put on generally but 5 cases at first, and if prepared as above it will be seen that 2 of these contain sections full of comb, which are ready for the bees to commence work in at once. In about a week all are gone over with again, and if those first put on are being worked in, more are added by spreading those apart and 2 more cases are inserted near the center and by placing a tier at one side. The next time I go over them probably some will be ready to come off, and in any event as many sections are now given as can be worked in to advantage by the colony, which generally takes the full capacity of the hive.

My next will be swarming, and how I manage when working for comb honey.

Borodino, N. Y.

For the American Bee Journal.

Pollen and Wintering Bees.

E. L. BRIGGS.

We have heard much of late, from certain quarters, concerning "pollen and bacteria," being the causes of dysentery among bees, that if the disease were contagious, I fear we should all have contracted the malady from over doses of pollen, pollen! noon, night, and morning, and by the week, until we are more than willing to dismiss Mr. Heddon, and to put ourselves, and our bees, too, on a low diet of pure honey, and see if we cannot get over the nausea we have so long felt, under the doctor's doctoring. I suggest that he feeds all the rest of his pollen doses to his small, dark, hybrid crosses, of black and Italian "coming bees;" and if it does not kill them in the next six months, then put them upon the market as the toughest bees out; on the principle of the "survival of the fittest."

Somehow our bees, out here, will persist in living through this winter, though their combs are full of pollen, and though they have been breeding quite plentifully ever since the 1st of January. Something else besides the pollen and breeding, then, causes dysentery. That something else might be found in Heddon's "brick," made of flour and sugar; fed to the bees dry. This might be impure, or adulterated honey and pollen both. Flour is not genuine pollen.

Late last fall, two or three of my colonies worked freely upon the skins and juice of grapes which were being manipulated for wine by a neighbor. The result was, in the early part of winter, while the bees were consuming this grape juice, they suffered considerable from diarrhea, spotting

the snow in their flights, and many of their bodies were so distended with the foul stuff on issuing from their hives that they were unable to take wing, and consequently perished at the mouth of their hive.

Neither can bees live upon pollen alone; for this is not their natural food. But bees can and do subsist on honey and pollen together. This is their natural and healthful diet, when they can mix it to suit their own taste. If the pollen or honey is fermented or turned sour, then it becomes unnatural, and consequently unhealthy.

Long continued and intensely cold weather, may shut them in to the limits of their brood nest, and after consuming all the honey therein, as a last resort, they try to appease their hunger on pollen, and, of course, being unnatural food, diarrhea results, and the colony perishes. One man says: "Diarrhea resulted from starvation." So it did! Another says: "It resulted from the consumption of pollen." So it did! Another says: "It resulted from long continued cold and dampness." This is true, too! But the "cold and dampness" kept them away from a supply of pure honey; hunger and starvation drove them to pollen as the only resort; this insufficient and unnatural food, produced enormous distension of the abdomen, and diarrhea; and all these causes resulted in death.

The truth in a nutshell is this: Bees in order to winter well, must have access at all times to pure honey, or some substance equally healthy to the bee, as food.

They may have access to impure honey, glucose, grape juice, cider, sorghum juice, West India molasses, or even pollen, or to Heddon's brick, in a good warm cellar, and unless they can fly out often to void their feces they will perish.

Colonies in the same yard will gather some such impure substance in the fall, perhaps many pounds of it, while others will gather none. The former may all die, while the others all do well.

Four frames, three-fourths filled with honey gathered from white clover, linden, or buckwheat, early in the season, put one inch apart into the middle of the hive, with a division board each side, and the vacant space filled with chaff, shavings, or old rags, with holes through the middle of each comb, for the free passage of the bees, will winter any colony safely. Set a box, with a cloth bottom, three inches deep, filled with chaff, on top of the frames, if wintered in the cellar; or, if wintered on their summer stands, surround the whole hive, sides, bottom, top, back, and front, with chaff 4 inches thick; with a fly-hole $\frac{1}{2}$ by 1 inch through the chaff and front part of box, to give them air, and egress, as they may choose, every fair day. If any one wishes to try the experiment, one of these middle frames may be packed full of good fresh pollen, cells covered with honey and sealed over as they usually are; and if the bees do not winter well I will pay all damages. Wintering bees is as simple as wintering stock of any other kind.

1. Keep them comfortably warm and dry.

2. Give them plenty of pure sealed honey, or pure sugar syrup, with plenty of pollen, where they can have access to it at all times. They will mix to suit themselves.

3. Let them remain in entire quietness until warm weather; and they are no more subject to disease than cattle, horses, sheep, or men.

Wilton Junction, Iowa.

For the American Bee Journal.

Albino Bees—Why So Called.

S. VALENTINE.

MR. EDITOR: Frequent reference has been made by different parties to the word albino, as an improper name for the bee which is so called. In the *American Bee-Keeper*, for November, 1881, Mr. Taylor says: "If they have no black blood in them, the name albino does not sound well, as I understand it to mean white coming from black." Mr. Harrison, editor of the *American Bee-Keeper*, and others, have advanced such an idea.

What does the word albino mean? Webster says that the term is of Latin origin; that it comes from *albus*, which means white. If you will follow the term, from its origin through all its combinations, you will find that the word *albus* gives its signification to all of its forms. Sometimes, owing to a freak of nature, black parents have had offspring which possessed an unnatural whiteness, such as white negroes; but this peculiarity is not confined to any color or nationality.

White parents are known to have children of this peculiar whiteness, with white skin, hair, and pink eyes. I could give the names of 3 or 4 persons, some male, others female, possessing this peculiar whiteness, commonly called albino. Now why they are so called is evidently because of the whiteness. Refer to the "Encyclopedia Americana," and you will learn that white rabbits and white mice are known to have a similar origin.

I need not dwell longer upon this subject, for any physiologist or scholar knows that while white offspring, coming from black parents, are called albinos, it is not because the term signifies coming from black, but because the word albino signifies a peculiar whiteness. The bees which we call albino are the whitest bees that are known; therefore while they are not perfectly white, albinos is a proper name for them, until one can be found that is yet whiter.

The albino bee is of American origin. Mr. Pike, I believe, was the first to bring them to the public notice. In the spring of 1874, he noticed one of his Italian queens breeding about one-half of her progeny with albino markings. He at once bred them in, and claims that he succeeded.

In July, 1876, I bought an imported queen from Mr. Willman, of Pennsylvania, from which I produced albino bees, as may be seen in an article,

"Origin of the Albino Bees," in the *BEE JOURNAL* for December, 1880, page 557. In June, 1879, I succeeded in breeding them to a high standard of purity, breeding albino markings to every bee, which to-day stands forth as the standard for the albino bee.

Before Mr. Pike called attention to the albino bee, we occasionally heard some one here and there speaking of albino as a term. They applied to some few bees developed in their apiaries, but no especial attention, as far as we can learn, was given to this variety or name, until Mr. Pike brought them more prominently before the public.

Mr. Pike is evidently entitled to the credit of first producing and calling public attention to the albino bee, but I claim that of giving the albino bee first to the public in its purity; i. e., with albino markings. Having accomplished this, Mr. Pike or myself, or both of us, surely have the right to name the bee, as much so as the inventor has to name his invention, or the parent to name his child. *Apis Americana* would be a very good name, but it would only signify its American origin, while albino signifies its shade of color by which the eye may readily recognize it; hence, we have named our bee—the result of our experiments or discovery—albino, and we feel no little pride in the appropriateness of the name. We call our bee albino, not because it comes from green, red, blue or black blood, but because it is a whitish bee—the whitest known.

Double Pipe Creek, Md.

For the American Bee Journal.

About Rearing Queens.

HENRY ALLEY.

After reading Mr. Butler's article in the *BEE JOURNAL*, I am prompted to write on the above subject again. How to rear strong, healthy, hardy, and prolific queens, has been my study for the past 20 years. My experience teaches me that the more queens a colony of bees rear, the shorter-lived and poorer in every way will the young queens be.

Now, if one will examine the interior of a hive after a swarm has issued they will find from 6 to 12 queen cells. Seldom less than 6 or over 12. Now, these cells are generally all sealed before the new swarm "comes off." Why is this? It is merely to have a large number of bees to feed, keep warm, and nurse the coming queen while in the larval state. It will also be found that a larva 3 or more days old will not be selected by the bees from which to rear a queen during the preparation for natural swarming. If the queen is removed from a full colony, the bees will select eggs and larvae quite old to rear queens from. They seem to understand the need of a queen as soon as possible; but in natural swarming, the egg is selected for the young queens, and the bees seem to know that they have plenty of time in which to build the

cells. I do not think that a queen reared from a larva 3 days old will be very prolific for any great length of time. Such queens may do well for a few months, and then will disappear. I am aware that all queens reared under the swarming impulse do not prove prolific and long-lived, neither do all the artificially-reared queens. As there are a much larger number of artificial queens reared than natural ones, of course there will be a larger number of inferior queens sent out.

Now, as we must have artificial queens, the question is, how can we best rear them, and keep up the standard of prolificness, hardiness, and purity? It certainly cannot be done if queens are reared as some queen dealers say they are rearing them. I know, from several years' experience, that good hardy queens cannot be reared by inserting a frame of eggs and larvae in all stages, in the middle of a full colony of bees. I find in such cases that the bees will select an old larva, say 1, 2, or 3 days old for a queen. I have had some colonies make as many as 60 queen cells at one batch. The colony was an extra large and powerful one, and the queens were pretty good.

I do not think very valuable queens can be reared in a hive that has just reared one lot; such queens will be very poor. But a colony of bees will continue to rear queens good or bad, if eggs are given them, so long as there is any hatching brood in the hive. Perhaps Mr. Butler will remember what I said in the JOURNAL some time ago, that I allow about 25 queens to be reared at one time, by 1 colony of bees. I think I said at that time that the bees had no other brood to care for except the 25 eggs given them to rear queens from. I find that a strong colony of bees put in a hive without any brood, except enough to rear a few queens from, will make double the number of strong and hardy queens that they will in a hive full of brood. A strong colony with not over 25 eggs, will concentrate all their forces on the small amount of brood given them, and as queen-rearing is their only object, one can expect nothing but good queens as a result. With my method for rearing queens, my full colonies are never queenless, and I use no brood in my queen-rearing hives, and still use all the bees in a strong colony for queen-rearing. To rear good, hardy, and strong queens, rear only a few to a hive. Remember that good queens cannot be reared in a strong colony by merely removing the old queen. They must start from the eggs or from larvae only a few hours old. I well remember a remark a bee-keeping friend made to me some 20 years ago: "I will tell you how to rear nice, large queens; let the bees start them from the eggs." Twenty years experience has verified that assertion.

That artificial queens can be reared that are better in all respects than natural ones is a fact well known to me for many years. I have in my mind now a case that will prove the fact as far as it goes. I sold a good,

strong colony of bees to a neighbor; well, they swarmed twice, and the young swarms died the following winter. The parent colony did not seem to build up strong again that year. The next year they did not do any better, and the parent colony never appeared to be full of bees. I judged that the bees had reared a poor queen, and during the month of August gave them a young Italian (artificial) queen. The following year the parent colony swarmed twice, and gave 40 lbs. of honey; the first swarm filled their hive and gave 20 lbs., and the second swarm filled their hive and stored 10 lbs. in a box. I make this statement merely to prove to some people that artificial queens are as good, if not better, than natural ones. I can give many more cases of the same kind.

Wenham, Mass.

For the American Bee Journal.

My Experience with Syrian Bees.

I. R. GOOD.

I have been requested by Mr. J. E. Lay, of Texas, and others, to give my experience with Syrian bees, in the columns of the BEE JOURNAL, which I will do without prejudice, and to the best of my ability. They are crosser than Italians if not very carefully handled. If a colony is made queenless and kept so any length of time, there will laying workers appear and fill the combs with eggs. They will not stick to the combs in handling as well as the Italians, but while they have those bad qualities, they also have very good ones. The queens are very prolific, consequently, the brood department will be filled with brood by the time the honey harvest begins, and the bees will take to the surplus boxes much earlier than the Italians, and work with a will.

Last season my Syrian bees were the first in the boxes by nearly two weeks, and some of my best colonies had 25 and 30 lbs. of honey ready to come off before the Italians could be induced to commence in the surplus boxes. They have proven themselves, with me, to be a much harder race of bees, standing the winter much better and are not as apt to spring dwindle as the Italians. They are not hard to introduce a queen to, if they have been queenless a day or two. They will accept a queen even where the hive is full of fertile workers. They are proof against moths and robbers. For fear there may be some that will say I am interested in the sale of Syrian queens, and consequently have an axe to grind, let me quote from others who are not interested in their sale. In the BEE JOURNAL, Vol. 17, page 316, Mr. Whitfield says: "We were fortunate in having 2 of the Palestine queens come through the past winter in good condition to start with in the spring; but as I had Italians that seemed to be in quite as good condition, I thought very little of them at first. About June 1, I noticed they had more than double the

bees on the wing than any other colony, and I took a glance at the inside, which showed 12 frames of brood in one and 9 in the other—frames 1 foot square. I now began to watch them with interest; they gave just double the increase, and each colony gave one-half more honey than the best Italians."

In the BEE JOURNAL for 1881, page 323, Prof. A. J. Cook says: "The tongue of the Syrian worker I find, after examining a large number of each kind, to be the same length as that of the Cyprian, and to average .006 of an inch longer than that of the Italians. The Syrians are excellent honey gatherers, certainly equal, if not superior, to the Italians. They are even more sure to repel robbers than are the Italians."

In *Gleanings* for 1882, page 132, A. I. Root says: "The strongest colony in our apiary is the Syrian one we have mentioned; they are almost the only ones that are wintering on natural stores, just because they had abundance of stores without any sugar feeding."

Now tell us your experience in the BEE JOURNAL apiary with the Syrians, as I know you have them. It is the truth in the matter we want. If the Syrian bees are no better, or not as good, as the Italians, we want to know it; and, on the other hand, if we can improve our bees by breeding Syrians or Cyprians, and crossing with our Italians, we also want to know it. The best bees are what we want.

Nappanee, Ind.

[We have, in the BEE JOURNAL apiary, two Syrian queens, supposed to have been properly mated, and several which have mated with Italian drones. Of the former, we have had but little knowledge of one, as it was quite late last season when we received her, but the other was obtained early in the spring. She proved very prolific, and we found her very useful in assisting to build up colonies. They were not fairly tested for working qualities, as the drain upon them for bees and brood was unremitting. Were it not for their irascible disposition, we would think much more favorably of them; but they certainly are much more vicious than any Italians we have had any experience with, and we have been unable to subdue them with smoke. The progeny of the younger queens, mated with Italian drones, appear larger than the full-blood Syrians, and are very docile, while the queens appear to have retained their proclivities for prolificness. We shall further test them this season for their honey-gathering qualities, in comparison with Italians, Cyprians, Southern brown bees, and hybrids of the different races.—ED.]

For the American Bee Journal.

Heddon's Honey Board.

JAMES HEDDON.

On page 156 of the BEE JOURNAL for March 8, Mr. Funk asks for a description of my honey board. Not quite liking your description of it, Mr. Editor, please allow me to do so.

"When I was a boy," away back in the "dim vistas" of the past, discussions about honey boards were in order and operation through the columns of the monthly BEE JOURNAL. Some stoutly averred, and all agreed, that honey boards between boxes or upper sets of frames, and the brood frames, were a great convenience, because they prevented the bees from sticking the frames together.

But some there were, who said that the honey board isolated the surplus department from the brood chamber to so great an extent that the bees would not obtain as much surplus as when these boards were not used. But Mr. Langstroth, in his book and specifications of his patent-claims pretty plainly told us that bees would put their surplus honey readily into any department where the "heat and odor" of the hive readily permeated. Inspired with this welcome and reasonable announcement, I set about constructing a honey board that I thought best adapted to the principles laid down. There is, sometimes, great convenience in placing hives on top of each other, with no board between. A super constructed properly for so doing must come down no lower than the bottom of its frames; then, when set upon the lower story the bee space above the lower frames, is the only and perfect bee space between the 2 sets of frames. Now, a flat honey board would touch the upper set of frames, whose bottom bars would be glued fast to it. This fact caused me to devise what I named my "sink honey board." I will describe it as nearly as I can:

Suppose your hive and super is made of $\frac{3}{4}$ thick lumber. Make a frame the size of the top of your hive, let the material of this frame be, end pieces, $\frac{3}{4} \times \frac{1}{2}$; side pieces, $\frac{3}{4} \times \frac{1}{2}$; rabbet these end pieces $\frac{3}{8} \times \frac{3}{8}$ on one corner; nail the side pieces to the end pieces, keeping the $\frac{3}{4}$ way of all pieces up and down. Now, I will suppose you have an 8 frame hive, (you ought to have, and a Langstroth frame at that), lay this frame on your bench rabbeted side up, have prepared 9 pieces that will reach lengthwise of the inside of your frame, and rest into the rabbets beside. They should be $\frac{3}{8}$ thick, and wide enough so that when laid in and nailed as follows the 8 spaces between them will be just $\frac{3}{8}$, nail the first one snug up to one of the side pieces, and the last one snug up to the other side piece; nail the side piece to this slat with one nail in the middle, on both sides. Now, when all are laid in and placed so that you have a board with 8 $\frac{3}{8}$ spaces running lengthwise of it, when you place it on your hive you will see that each space comes exactly over the middle of the top bar

below. When you placed this honey board upon your hive you turned it over, and found that your slats were $\frac{3}{8}$ lower than the sides of the board, so, now, if you place your super upon it, though the frames of this super come down flush with its bottom, there will be a $\frac{3}{8}$ space between them and this "sink honey board." As the slats of this board break the direct opening between the lower and upper stories, no bits of comb are built up through, and the upper frames (which should rest on a metal rabbet, but have no metal corners) move up by simply picking them up. No bees can be crushed when replacing them, as the lower space is always clear of all pieces of comb. You see that with this arrangement the heat and odor of the brood chamber is in no way retarded.

I use the same board for sections, only I add to it $\frac{3}{8} \times \frac{1}{2}$ inch cross pieces (as needed, according to the length of sections) so that the sections rest on them just at their ends, and leave bee space under all the rest of their entire length. These sections pick up clean of all dropping bits of combs, and hence remove readily, and come off clean and nice. I have used this board for comb and extracted honey for more than ten years, and when I say that they are in no way any detriment to the amount of surplus honey received, and are highly in favor of its neatness and appearance (if comb), and the convenience of the apiarist, I have no fears but what the future will verify the statement.

Dowagiac, Mich.

For the American Bee Journal.

Over-Stocking and Marketing Honey.

O. M. BLANTON.

After the sale of 25 colonies, I commenced last spring with 315. Our income up to October 15, was as follows: Extracted honey, 10,359 lbs., \$744.46; comb honey, 2,295 lbs., \$331.97; beeswax, 64 lbs., \$12.80. Total, \$1,214.23. Add 25 colonies at five dollars, \$125. Total, \$1,214.23.

From the above you will perceive that my comb honey sold for about 14 $\frac{1}{2}$ cts., and my extracted for about 7 $\frac{1}{2}$ cts. My average yield per colony was about 40 lbs., and average profits about \$3.45. I lost only 1 colony from absconding, and increased to 326 colonies. A considerable amount of wax was used for the barrels, and all irregular section combs, after being extracted, and pieces of drone comb cut from the brood chamber, were tied in Langstroth frames and placed in the upper story.

I will now add in this report that of my friend, G. C. Vaught. Mr. Vaught's report is taken from the account of sales by his merchant, and the entire yield is from 32 colonies: Comb honey, 2,877 lbs., \$513.03; extracted honey, 200 lbs., \$20.00. Total, \$533.03. His extracted honey yielding 10 cts. per lb., and comb honey 17 4-5 cts., average yield per colony, 96 lbs. Profit, \$16.65.

Mr. Vaught shipped all of his comb honey to St. Louis, but sold his extracted at home. He lost 6 swarms from absconding and increased to 40 colonies. After the 15th of August he did not extract honey from the lower story. He uses the same pattern of hive that I do, and has only 2 colonies of Italians. All of my apiary is located within 2 acres in the town of Greenville, 600 yards from the Mississippi river. Mr. Vaught's is located 4 miles from the river in the country, and therefore can forage at all points of the compass.

The above reports do not show the net earnings as the cost of labor and packages must be deducted. Mr. V. was fortunate in his merchant, as his and my comb honey was of the same quality and packed in similar cases to mine, and sold at same time—his for 18c., mine for 14c., by a merchant near by. He sold some for as much as 23 and 25c.

From the above it is seen that a locality can be over-stocked; although 300 colonies can be made profitable in this county, especially in a good season. In the past season we suffered from late frosts in the spring, and severe drouth in June, July, and part of August.

Greenville, Miss.

For the American Bee Journal.

The "Call" of a "Strange Visitor."

DR. G. L. TINKER.

As Mr. G. M. Doolittle is reported to be very ill, and, moreover, since he would doubtless treat the impertinent, slurring, and disrespectful article of Mr. Van Kirk, on page 167 of the BEE JOURNAL, with contempt, it may be well for another to notice it. For myself, I must deprecate such an attack, and confess that I felt pained upon reading it. It will not do, in this manner especially, to call in question the honest statements of our foremost apiarists who have so generously, freely, and without reserve, given to bee-keepers everywhere the benefit of their various modes of management, which has contributed so much to make modern bee-keeping what it is to-day. They are not only entitled to great credit and respect, but we owe to them a debt of gratitude. Mr. Van Kirk can ill afford to attack men who have done so much in his behalf.

Mr. Doolittle is not the only one who has made "big reports," nor the only one among skilled and experienced apiarists to suffer serious losses. As to reports, other bee-keepers have made more astounding ones, and yet others have suffered far greater losses in wintering.

Doubtless, if Mr. Van Kirk were to go over the writings of other frequent contributors to the BEE JOURNAL, he might find apparently conflicting statements, which, however, in the presence of all the facts, could be reconciled. But it would profit no one.

I do not care to go over Mr. Van Kirk's article in detail. It is sufficient.

to note that he is inconsistent; that he has not carefully read Mr. Doolittle's writings, and, above all, that he is not honestly nor respectfully seeking information.

New Philadelphia, O.

[We are quite confident Dr. Tinker gives utterance to the sentiments of many of our readers regarding this class of commentators. Not only is it calculated to wound the feelings of the person criticised, but will have a tendency to deter many eminent contributors from communicating their improvements, or ideas, through the press columns, for fear of malevolent or sarcastic criticism. So long as discussion is confined to courteous and generous debate, much good may be derived from it; but when innuendoes and sarcasm supplant argument and reason, the article inspires disgust rather than admiration. We have exercised our prerogative to withhold several such articles from publication, and are satisfied the writers themselves will ultimately feel grateful to us for so doing.—Ed.]

SELECTIONS FROM OUR LETTER BOX

Long Idea Hives.—On page 139, Mr. Fayette Lee, of Minnesota, asks you which hive will give the best returns—a long one, or a two-story hive? and you answer: "A two-story hive." I have 50 "long idea" chaff hives in my yard to-day, and no two-story hives. I have repeatedly tested them by the side of the long hives for extracted honey with results in favor of the long ones every time. I will give my mode of management. The hives are 36 and 40 inches long—mostly the latter length—made double, with slanting roof. I use a frame 13 inches long by 11 deep, inside measure. When the colony gets large enough to occupy one-half the hive, if the forage is good, I give them the whole length, spreading the brood and putting an empty comb between the whole length of the hive, and when ripe enough to extract, I empty every comb that contains enough to pay for handling, leaving one comb usually to keep the bees quiet. My 50 hives will hold 3,000 lbs., which is quite an item when a person is hurried with other business, as it can remain quite a length of time frequently. My bees last spring were reduced to mere nuclei, and I did not extract at all till they had finished their summer's labor, and then the honey was nicely ripened and mostly capped. Such hives should remain on the summer stands, as they would be quite heavy to move. I would advise Mr. Lee to try both sorts of hives until he is satisfied which is best. But when you say to

him that the two-story hive will give the best returns you are much mistaken, in your humble servant's opinion, as far as extracted honey is concerned. I do not see how the BEE JOURNAL can be improved from its present shape—it is intensely interesting now. Nodwinding amongst bees this winter. They have had several flights since February 1. Brood-rearing started some in February and no loss to speak of. W. H. S. GROUT.

Kennedy, N. Y., March 13, 1882.

[Our answer to Mr. Lee's interrogatory was intended for a hive for all purposes—not comb honey alone, nor for extracting exclusively. It was a general question, and answered as such.—Ed.]

Buying and Smoking Bees.—Please answer the following in the next issue of the BEE JOURNAL:

1. In buying bees, how early in the spring should the purchaser get possession of them?

2. Do those handling bees usually smoke them for all their manipulations?

Beatrice, Neb.

[1. The delivery of bees depends much upon locality and season. In contracting, mention is usually made of time for giving possession, as purchasers frequently prefer taking the risk of spring dwindling, in order to have the bees sooner to assist in divisions and strengthening. Then, again, if in cellar, the vender will not give possession till all are on the summer stand, in order to give opportunity for selecting average colonies. Some dealers make a special point of not shipping or delivering till June, unless the contrary be specified, which gives them the advantage of a first swarm, or brood sufficient to nearly make one, which they consider a compensation for risk in wintering and spring dwindling.

2. No; unless quite vicious.—Ed.]

Gathering Honey.—Bees are doing finely, gathering honey from willow, tame China, and locust. I notice in the JOURNAL of the 8th inst., that Mr. J. S. Tadlock, of Luling, Texas, dated Feb. 25, says he will extract new honey the first warm days. Now, will Mr. T. please inform me what it is that his bees gather so much honey from, that he can extract so early? My bees are in exactly the same latitude as his, about 150 miles due east. I have extracted about 1,000 lbs., but it is honey gathered last fall. I leave frames in the upper stories all winter, and do not believe in taking all the honey out to make a big report, and then feed back sugar or glucose, and lose half of my bees from starvation. We all know that the old bees die off very fast in spring, and it takes all they can gather for brood-rearing until the flow from linden, wild China

and horsemint. I have no swarms yet; am looking out for them now. Weather is fine; peach trees are nearly out of bloom; corn is up ready to plow. Have new potatoes and English peas. Prospects are good for honey.

J. W. ECKMAN.

Richmond, Tex., March 18, 1882.

Early Drones.—MR. EDITOR: I send you a few Italian drones; the progeny of a daughter of my imported queen, and the best marked drones I ever saw. Are they as light colored as the lightest?

J. S. TADLOCK.

Luling, Texas, March 14, 1882.

[We have the drones in a bottle of alcohol, to compare with other specimens we have in the museum. They are very fine, but not as purely yellow as several specimens, some of which have been here for 3 years. They are not as fine as those we exhibited in Italy in 1849.—Ed.]

Clipping Queen's Wing.—Please inform me how and the proper time to clip queens' wings; also, how to proceed to Italianize an apiary? I have 1 colony of Italians and 14 of blacks, and wish them all Italians.

Earlville, Iowa. A. L. CONGER.

[During fruit bloom, or early white clover, we have found the most convenient time for clipping a queen's wing. By lifting a frame gently from the hive, so as not to frighten the queen or anger the bees, with a small pair of scissors and a steady nerve, the wing can be clipped off without the queen scarcely knowing it. If, however, you are nervous in movement, better lift the queen by grasping her gently at the fore part where the wings join the body, and deliberately cut off about one-third of one wing. Care must be observed not to grasp her by the abdomen.

The great majority of your bees being blacks, you will have to cut out the drone comb very closely from the blacks, then stimulate your Italian colony rapidly, both by stimulative feeding and giving sheets of worker brood from your black colonies; then insert drone combs to get drone eggs and brood as soon as possible. When you have Italian drone brood capped, remove the queen into a black colony, and let the Italian colony build queen cells. When these are ripe, remove your black queens, or form queen-testing nuclei from your black colonies, and thirty-six or forty-eight hours after graft in the queen cells. If you have been successful in forwarding Italian drones, and suppressing those from the blacks, your work will be easily accomplished; otherwise, it will be quite difficult.—Ed.]

Wintering Well.—The winter has been very favorable for our bees so far, whether on summer stands or in cellar. Last winter my bees were left on the summer stands in very open hives; in fact, they were so open at the sides and top that I expected to lose all of them before spring, but out of 18 I only lost 2 colonies; they were in box and log hives. When the season opened last spring I transferred them to frame hives, and increased to 25 by using foundation comb (Dunham), putting it in with Goodrich's fastener. This machine works nicely and places the foundation solid in the center of the frame. I was very successful with the foundation; not one sheet dropped, and I put in large swarms. What were once log and box hives, now have frames, so that I can handle them with some pleasure. I have them in the cellar, with the tops raised and bottoms open; they seem to be very quiet. Should they be put out for a fly, or leave them until spring opens up, so that they will not have to be put back in the cellar? W. H. BECKWITH.

Saybrook, Ill.

[If the bees show signs of uneasiness, put them out for a fly; otherwise, let them remain in the cellar while all is going well—"let well enough alone," is an old maxim as applicable to bee-keeping as anything else.—ED.]

Ninety Colonies in the Cellar.—Have had 94 colonies in the cellar since Nov. 24; a few show signs of dysentery; 2 in the open air are quite strong. Bees in this section have wintered well. J. C. THORN, M. D.

Streetsville, Canada.

Good Bee Pasturage.—I have 57 colonies and cannot get along without the BEE JOURNAL. The last was a poor season for honey in this locality. My bees are in good condition. We have one of the finest localities in the State for bee pasturage.

HEZEKIAH SMITH.

Fredericksville, Ill.

The Season, Smokers, etc.—The opinion of many writers for the JOURNAL is that we shall get a large crop of honey the coming season. I suppose they base their opinion on the condition of bees at the present, but we should not shout too loud until we get nearer the clearing; we have a spring to contend with, just ahead of us; then comes the harvest. Farmers in this vicinity are all expecting a very light crop of grass; they say that the winter has been very unfavorable for the meadows; that timothy and clover have "winter-killed." The roots are on the top of the ground, thrown out by the frost. Bees are in splendid condition; that is good so far, but if white clover is killed out, we cannot expect a very large surplus. In No. 9, page 137, Mr. T. F. Bingham has an article entitled, "A Partial Review." I think the action of the Northeastern Bee-Keepers' Association

must have touched him in a sore spot. Be that as it may, I do not desire to keep rasping on a sore spot, when one is found, so I will try to heal it up. Mr. Bingham in his remarks, brings me in, and all I want to say is that if I understand the case, I do not wish to take back what I said, but to reiterate it in fully as strong language. I understand that Mr. Quinby was the first to get up a practicable bellows smoker, and I believe he is accorded that by all. I am informed that Mr. Bingham got out a patent on bellows smokers; I do not know what the patent covers, but I am told that he came down and forbade L. C. Root and others from manufacturing the bellows smokers. My point is this, if Mr. Bingham patented what others had invented, and tried to stop others from making, I condemn such in the strongest terms; but if Mr. Bingham's fertile brain has originated anything that is worthy of a patent, he is entitled to all its benefits, and I will hold up both hands to sustain him or any other man in his or their rights. W. E. CLARK.

Oriskany, N. Y., March 17, 1882.

Beginning.—I am commencing with bees here, and have 8 colonies, and will report progress hereafter. There are quite a number of amateurs here and all need such instructions and help as the BEE JOURNAL gives. Boulder, Col. C. P. WALDRON.

Answered to Roll Call.—On the 18th inst. my 21 colonies answered to roll call. My apiary is in my yard, which contains about one acre, and is well set in blue grass and beautifully arranged shade trees and shrubs. In the southeast corner of my apiary, where there are no hives yet, I put some boards and set some troughs on them in which I put syrup made of pure A sugar, and then placed a layer of dry corn stalks on the syrup. At 10 a. m. I procured a few coals on a shovel, and put a little piece of old comb on the fire, and in less than 3 hours the syrup was all gone clean and dry, and only 3 dead bees left at the troughs. They put in the rest of the day bringing pollen from the maples and elms, which are plentiful here, and in the evening I found that colony No. 8, was robbing colony No. 4. They would not let any others rob them but No. 8. They would fight all others, and all winter this colony No. 4 was uneasy, and at times acted like they would swarm, so I examined them and found that No. 8 had all the honey, and both are strong colonies of bees. I then took the brood chamber of No. 4, and set it on top of the brood chamber of No. 8; they remained there about 20 minutes; I then took it off; the bees had gone down into No. 8, and left their queen alone above. I then examined her and found her to be a deformed, unmated young queen with 1 leg off. I killed her and the bees united and went to work without any trouble. My 20 colonies are now hatching young brood. The prospects are good, although too much rain. R. M. OSBORN.

Kane, Ill., March 20, 1882.

A High Fence.—I think Mr. Casson is right regarding the high fence around the apiary. I had a colony that got to robbing last season. There was an orchard in their line, and some of the bees in coming back would go around the orchard instead of going over it. I wish to make some foundation for section boxes. I have a set of dies, but do not know how to prepare the sheets to be pressed. Will you give me light on the subject?

H. W. CLEVELAND.

North Sheffield, O.

[Nearly every manufacturer has, from experience, acquired methods peculiarly his own in some of the details of preparing sheets for the rolls or press. Until quite recently, the method was generally to dip a sheet of galvanized iron or thin wood into a boiler of melted wax. Care must be taken that the wax is about the right heat, and the dipping plate or board is kept cool by immersing in cold water before putting it in the hot wax. A solution of soap bark, as it is called, and which may be procured from nearly all druggists, is used in washing the plate or board, and especially the edges to prevent the wax from sticking, after they have been unused for some time. Some little practice will be required to make everything work smoothly and satisfactorily.—ED.]

Improvements in Bee Hives.—I hope the bee hive question is not too hackneyed to merit special and general discussion at present. I have given the subject much consideration, and would like to have the question fully discussed, for it seems to me that important changes are imminent.

Montpelier, Vt. A. WEBSTER.

Good Increase.—In the spring of 1880 I commenced with 4 colonies of black bees. I transferred them to frames 8½x15 inches, with success for a new hand. Increased to 10 in fair condition, but lost all but 2 weak colonies in the spring of 1881. In May I bought a colony in a box hive, and on transferring them found the combs full of brood. This colony started me up afresh, and I increased to 12 good-sized colonies, and obtained 50 lbs. of honey in 1 lb. sections. Of these, 5 strong colonies were left on their summer stands, in double boxes filled with sawdust all around, and lime cushions over them, which were covered with cut straw, and corn-stalks set all around. The 7 lighter colonies were put in an 8x16 cellar under the house, partitioned off from the other cellar, with a 4 inch pipe under ground. I bored 3 holes in the floor under a partition, which takes the dampness up to the rafters of the house, and by which it escapes. The bee cellar is always fresh. I put the bees in the 18th of November. They seem to like it, and are very quiet.

Matteson, Ill.

A. WICHERTS.

Bee Moths.—I have been over the country considerably in the last three days, and have not failed to pay my respects to the blessed bee. I have not found a dead colony, but few moths, and plenty of honey. This has been a remarkable winter for the preservation of the bee. The ignorance that is prevalent concerning the natural history of the bee is distressingly conspicuous, and no amount of argument can induce them to subscribe for a bee paper or make any move to enlighten themselves. Every intelligent person that keeps bees for profit will have to make the business a study, and the beginner will find many mysteries, and will be under the necessity of asking many questions, and as I am a very recent beginner, I will ask a few questions: 1. What is the technical name for the moth? 2. How long in the year may we expect to find it? 3. What time in the day may we expect to see it? 4. How does it get in the hive? 5. What is the remedy? WM. T. STURGILL.

Pickering, Mo., March 6, 1882.

1. *Galleria cereana*.
2. From early in spring till late in the fall, if colonies are not strong.
3. You will frequently in summer, especially toward evening of a warm day, see white or cream-colored moths, sometimes called millers, nearly an inch long, suspiciously numerous around the hives.
4. They frequently enter the hives at night, or in the morning or evening. They sometimes deposit their eggs in cracks around the hives, from whence the larvæ enter the hives, and take up their quarters in the combs. These attain nearly an inch in length.
5. Keep your colonies strong. They can be exterminated from the combs, by placing the latter in a small, close room, and sulphuring thoroughly three times at intervals of six days.—ED.]

Blizzard.—We have a regular "blizzard" here—this is the second day of it. We have 2 inches of snow on the ground now. JAMES HEDDON.

Dowagiac, Mich., March 22, 1882.

[It is better to have it at this time rather than later. It will not be injurious now; two or three weeks later it would cause sad results. As we write (on March 24th) the weather is balmy in Chicago. Very soon the air will be filled with the melody of the feathered songsters, the earth will be decked with "living green," the bursting buds will unfold their beauteous forms, yielding generous perfume to man and honey for the "blessed bees," and all nature will be clothed with loveliness. Is not the prospect soul-inspiring?—ED.]

Bees Do Not Puncture Grapes.—I have seen much upon the honey bee and grape question. Those who say that bees puncture grapes have never investigated the subject, or, if they have, it was about like a doctor in my neighborhood who went to inspect a gravel pit. He went to the hill, took up some quicksand in his fingers, felt of it, and reported "good gravel and lots of it." To tell the truth, there was no gravel there. This is about the way the bee is found biting grapes. Some of the grape men are about like the doctor with the gravel. I doubt very much if they could tell a bee from a yellow jacket. If they will investigate as I have done, and tell what they see, we will hear no more of this nonsense. The first dry summer and fall I want these grape men to get a No. 1 microscope, and go to the vines quite early in the morning, and stay all day, when you will see that the bees wait till the leaders come. They will see bumble bees, yellow jackets, hornets, sweat bees, birds, and worms so small you can hardly perceive them. Watch the wasps and count how many grapes she stings in one hour, and see how the bees follow and suck the juice. The wasp gets none, as the bees follow closely and crowd it away. Keep the wasp and the others mentioned away, and there will be no more grapes punctured. Catch one and let it sting half the grapes in a bunch, and see how quickly the bees suck the stung grapes and leave. W. D. SMYER.

Ninevah, Ind.

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

- For a Club of 2,—a copy of "Bees and Honey."
 " " 3,—an Emerson Binder for 1882.
 " " 4,—Apilary Register for 50 Colonies, or Cook's (Bee) Manual, paper.
 " " 5,—" " cloth.
 " " 6,—Weekly Bee Journal for 1 year, or Apilary Register for 200 Cols.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

To any one sending two new Weekly subscribers for a year, we will present a volume of the BEE JOURNAL for 1880, bound in paper covers. It contains much valuable information, and it will pay any one who does not already possess it, to obtain a copy. Many of our new subscribers will be pleased to learn that they can get it for \$1.00, by sending for it at once, before they are all gone.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

CLUBBING LIST FOR 1882.

We supply the Weekly American Bee Journal and any of the following periodicals, for 1882 at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage is prepaid by the publishers.

Publishers' Price. Club.	
The Weekly Bee Journal,	\$2 00..
and Gleanings in Bee-Culture (A. J. Root) 3 00..	2 75
Bee-Keepers' Magazine (A. J. King), 3 00..	2 60
Bee-Keepers' Instructor (W. Thomas) 2 50..	2 35
The 4 above-named papers,	4 50.. 4 00
Bee-Keepers' Exchange (Houk & Peet) 3 00..	2 80
Bee-Keepers' Guide (A. G. Hill),	2 50.. 2 35
Kansas Bee-Keeper,	2 60.. 2 40
The 7 above-named papers,	6 30.. 5 50
The Weekly Bee Journal one year and Prof. Cook's Manual (bound in cloth) 3 25..	3 00
Bees and Honey, (T. G. Newman) ..	2 40.. 2 25
Binder for Weekly, 1881,	2 85.. 2 75
Binder for Weekly for 1882,	2 75.. 2 50

Honey and Beeswax Market.

OFFICE OF AMERICAN BEE JOURNAL, }
 Monday, 10 a. m., March 27, 1882. }

The following are the latest quotations for honey and beeswax received up to this hour:

Quotations of Cash Buyers.

CHICAGO.

HONEY—As the season is well advanced, sales of extracted honey are slow and prices remain unchanged. I am paying 8c. for dark and 10c. for light, cash on arrival. Good comb honey is scarce and rules high.

BEESWAX—I am paying 22c. for good yellow wax on arrival; 18@20c. for medium grade, and 15@17c. for dark.

AL. H. NEWMAN, 972 W. Madison St.

CINCINNATI.

HONEY—The demand for comb honey is slow, and prices nominal at 16@20c. on arrival. Extracted honey is in fair demand. Our jobbing prices for 1 lb. jars of clover honey are, per gross, \$25; for 2 lb. do., per gross, \$42. The demand for manufacturing purposes is very good. We pay 8@10c. on arrival.

BEESWAX—Brings 18@22c. The demand exceeds the offerings. C. F. MUTH.

Quotations of Commission Merchants.

CHICAGO.

HONEY—Choice white comb honey is very scarce and commands 22@25c. per pound. Other grades, partly dark and dark are very slow sale. Extracted firm at 9@12c., according to quality and style of package.

R. A. BURNETT, 165 South Water St.

NEW YORK.

HONEY—There is a liberal supply of honey here for which trade is very little demand, and prices rule weak and irregular.

We quote as follows: White comb, in small boxes, 18@19c.; dark, in small boxes, 12@14c. Extracted, white, 10@11c.; dark, 7@9c.

BEESWAX—Prime quality, 21@23c.

THORN & Co., 11 and 13 Devos avenue.

BOSTON.

HONEY—Trade quiet. We quote at 20@22c., according to quality.

BEESWAX—Prime quality, 25c.

CROCKER & BLAKE, 57 Chatham Street.

SAN FRANCISCO.

HONEY—Reports from apiarists in the Southern part of the State give very encouraging prospects for the coming season. These prospects are, of course, subject to contingencies favorable or otherwise, later on. Market is quiet and stocks very light.

We quote white comb, 16@20c.; dark to good, 10@14c. Extracted, choice to extra white, 8@10c.; dark and candied, 7@8c. **BEESWAX**—23@25c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY—Strained dull, at 8@9c.; no comb here to speak of—worth 18@22c.

BEESWAX—Stiff at 20@21c. for prime.

R. C. GREER & Co., 117 N. Main Street.

CLEVELAND.

HONEY—The market remains unchanged; 1 and 2 lb. sections of No. 1 white are in regular and quick demand at 21@22c. No. 2 white has dragged a little of late, but took a lively start to-day at 20c. cleaning out all stock on hand. Buckwheat no sale. Extracted is quite active at 12c. for small and 11c. for large packages.

BEESWAX—25@30c.

A. C. KENDEL, 115 Ontario Street.

THE AMERICAN BEE JOURNAL

RATES FOR ADVERTISING.

20c. per agate line of space, each insertion.

A line of Agate type will contain about eight words; fourteen lines will occupy 1 inch of space.

Special Notices, 50 cents per line.

DISCOUNTS will be given on advertisements for the Weekly as follows, if paid in advance:

For 4 weeks.....	10 per cent. discount.
" 8 ".....	20 " "
" 13 " (3 months)....	40 " "
" 26 " (6 months)....	40 " "
" 39 " (9 months)....	50 " "
" 52 " (1 year).....	60 " "

Discount, for 1 year, in the Monthly alone, 25 per cent., 6 months, 10 per cent.

Discount, for 1 year, in the Semi-Monthly alone, 40 per cent., 6 months, 20 per cent.

Advertisements withdrawn before the expiration of the contract, will be charged the full rate for the time the advertisement is inserted.

Transient Advertisements payable in advance.
—Yearly Contracts payable quarterly, in advance.

THOMAS G. NEWMAN,

974 West Madison Street., Chicago, Ill.

Special Notices.

To Advertisers.—By reference to our schedule of rates for advertising by the year, it will be seen that considerable reduction has been made. This, in connection with our large and increasing circulation, makes it advantageous to dealers to avail themselves of its weekly visits to the bee-keepers of America to make their announcements for the coming season's trade. We not only offer the best advertising medium, but the lowest rates on yearly contracts.

A Sample Copy of the Weekly BEE JOURNAL will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

We will send Cook's Manual in cloth, or an Apiary Register for 100 colonies, and Weekly BEE JOURNAL for one year, for \$3.00; or with King's Text-Book, in cloth, for \$2.75.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

To Promote a Vigorous Growth of the hair, use Parker's Hair Balsam. It restores the youthful color to gray hair, removes dandruff, and cures itching of the scalp. 11w5t

The Apiary Register.

As the time is now at hand to commence the use of this valuable book, all who intend to be systematic in their work during the coming season, should obtain a copy and commence to use it. We give the following notices by the bee papers of America, which most thoroughly endorse its use:

"Every bee-keeper should have a good understanding of the condition of every colony of bees in his apiary; he should also become aware of the superior and inferior qualities of his bees, and know the colonies to which these traits belong. He should record the amount of honey, in pounds, which is taken from each colony and thereby learn which colonies are the greatest honey gatherers, and therefore the most profitable. He will thus be enabled to learn and decide for himself which queens will pay him the best to breed from, and how such queens look—whether the color or size decides in any way the superiority, and more than one question which is harrowing our minds to-day, each may settle for himself by the following bee-keeping in a systematic and orderly way. When such a day comes we predict a more harmonious and satisfactory time for bee-keepers. We have long urged the need of systematic bee-keeping, and one of its necessities has been brought forth by T. G. Newman, of Chicago, from whom we have received a copy of the Apiary Register, which was devised to contain a complete record of each colony in the apiary. The book is leather bound and well gotten up."—*Bee-Keepers' Guide*.

"The latest thing out in the way of convenience for systematizing work in the apiary, is an Apiary Register book, gotten up by Mr. T. G. Newman, to whom we are indebted for a sample copy of the work. Two pages of the book are devoted to each colony, with rulings and proper headings, so that a glance will give a complete history of the colony. On the front pages are plain directions for using the Register, with two sample pages, showing how to fill up the blanks."—*Kansas Bee-Keeper*.

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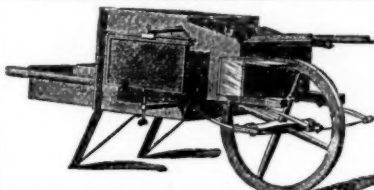
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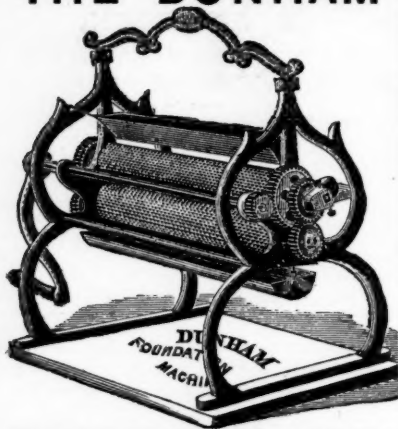
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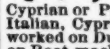
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